

# A Program Based on Integrating Neuro–Linguistic Programming and Multiple Intelligences to Develop Al- Azhar Secondary Institute Students' EFL Reading Comprehension Levels

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## Abstract

This study aimed at investigation the effect of a program based on Integrating Neuro –linguistic Programming and Multiple Intelligences for developing (60)1st Year EFL secondary Al-Azhar institute students' reading comprehension levels, at Kafr Abo-Gabal Formal institute, Sharkia Governorate in 2023. The participants were equally divided into an experimental group (30) and a control group (30). The researcher adopted quasi-experimental design. To achieve the aim of the study, the researcher designed students' reading comprehension levels skills questionnaire, in addition pre-posttest based on validating the previous instruments and the rubrics for correcting them. The suggested program based on Integrating Neuro –linguistic Programming and Multiple Intelligences was designed and taught to the experimental group in the first term (2023) for 40 periods, while the control group received regular instruction. The results indicated that the experimental group outperformed the control group in the post- reading comprehension levels test administration. The effect size of using the program was found to be high. It is recommended that the Suggested Program must be adapted to suit the needs of the other educational stages in Egypt, especially Al-Azhar institutes.

**Keywords:** The Program of neuro –linguistic programming and Multiple Intelligences, EFL secondary institutes' students, reading comprehension levels.

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## 1. Introduction

### 1.1. Reading comprehension

English language is spoken in various fields depend on it such as: science, tourism, diplomacy, computer and aviation depend on it [1]. States that English is the official language of 53 countries and spoken with nearly 1, 13 billion people across the globe. It is the most common second language in the world. Basically, reading is an essential component of language proficiency and a major focus of second /foreign language instruction .Reading comprehension plays an essential role in teaching and learning reading, it is an important requirement for academic success, it has been defined in various ways; For example, reading comprehension is the process of making meaning from text. Therefore, the goal is to gain an overall understanding of what is described in the text rather than to obtain meaning from isolated words or sentences [2]. The identification of five critical components of reading comprehension in a foreign language involves phonological awareness, alphabetical understanding, and controlling reading fluency with connected text, reading comprehension – by the National Reading Panel National Institute of Child Health and Human Development (NICHD) [3]. It is also revealed that sufficient reading instruction focuses the following components:(a) providing students with the skills and knowledge that the sounds of spoken language (phonemes) correspond with printed letters (graphemes);(b)

teaching the skills and strategies needed to decode unfamiliar words; (c) providing students with multiple opportunities to practice reading connected text fluently(e.g., with automaticity , accuracy, and prosody); (d) providing sufficient background information and vocabulary to foster reading comprehension; and (e) supporting the development of appropriate active strategies to construct meaning from print (No Child Left Behind Act, 2001).

These three dimensions exist within the larger socio-cultural context which is formed by the reader and which interacts with each of the three dimensions, the relationship between the three dimensions and socio-cultural context in the process of reading comprehension is showed in figure (1). Guthrie et al. (2004:193) suggested that "reading comprehension consists of the process of constructing conceptual knowledge from a text that EFL readers construct and extract from the text is emphasized in comprehension". He also added that the processes emphasized within this definition suggest that the reader (a) uses knowledge of the world, (b) activates vocabulary; (c) employs linguistic knowledge; (d) uses cognitive comprehension strategies; and (e) displays motivational attributes, such as goals for reading, sense of confidence, and interest in the topic. For somewhat different definitions of reading comprehension, Griffiths et al. (2010) put their emphasis on the text, the reader, and socio-cultural context. They stated that "text comprehension is dynamic, interactive process between the individual, the text,

the reading activity (i.e., purpose), and the larger socio-cultural context for reading." Additionally, Briefly, Koda [4] stated that "comprehension occurs when the reader extracts and integrates various information from the text and combines it with what is already known. Summarized the nature of reading and reading comprehension stating that reading is one of English language skills considered prominent for readers. They are required to extract some stated and implied information from the text by analyzing or interpreting the sentences to elicit the questions answers.

### 1.2. Nature of reading comprehension

There is an agreement among methodologists that reading is a thoughtful process, and thus it adopts the idea of varieties; Kirby [5] confirmed that reading is a complex purpose, interactive comprehension, elastic activity that takes considerable time and resources to improve. Reading is rapid, which means readers should maintain flow of information at a suitable rate to make connections and inferences important to comprehension. The reader typically expects to understand what she is reading. Reading is a flexible process in which reader employs a range of strategies to read efficiently. It improves gradually; the reader does not become fluent suddenly or immediately following a reading development course. Reading comprehension strategies which, learners should acquire in linguistic knowledge of a language through knowing its phonological, syntactic, morphological and semantic rules to be a good reader comprehension [6].

### 1.3. Reading Comprehension Levels

Reading comprehension is the ability to create meaning from a written text through decoding the writer's words for achieving the understanding successfully. It is supposed that readers can read and obtain the idea at different levels of comprehension. Moreover, when readers interact with written texts, In this case reading comprehension levels mean different depth of understanding and different analysis of meaning (Grabe & Stoller, 2014). According to de la pen and Rojas [7] divided comprehension into four levels of skills: Literal, interpretive/ inferential, critical and creative. These levels relate to the classes of cognitive (intellectual) behaviors identified by Bloom [8] and others, since comprehension skills are also thinking skills "knowledge" relates to the literal level of comprehension; "comprehension" and "application" relate to the interpretive/inferential level; "analysis" and "evaluation" relate to critical level; "synthesis" relates to creative level. These levels often referred to as literal level, inferential level, critical level and creative level.

### 1.4. Reading Comprehension Skills and sub-skills for EFL secondary students

He and Xiao (2008:143) identified some reading comprehension sub skills which comprise five main tasks (vocabulary choice, lexical inference, co-referential resolution, text-based inference, and gist detection). Each of these tasks was designed to measure a specific comprehension sub skill. These skills include:

- 1) Identify a content appropriate compound word;
- 2) Inferring meaning of word using contextual information;
- 3) Identify the referent of a pronoun across sentences;
- 4) Inferring an unstated text segment based on information presented in the text, and;
- 5) Grasping the main idea of the passage.

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Also, Liu [9] stated that reading skill can be described as a cognitive ability used by the readers when interacting with texts. He clarified that reading involves some sub-skills such as; scanning, skimming, making predictions, guessing meaning of new words, inferring, understanding text structure and discourse markers, reading for gist, reading for details, making summaries, etc. It also added that, especially secondary stage students, need to practice all these reading sub-skills to master English and achieve academic success:

- 1) Identifying causes and effects.
- 2) Identifying comparisons and contrasts.
- 3) Drawing logical conclusions.
- 4) Making predictions.
- 5) Making inferences.
- 6) Distinguishing between relevant and irrelevant information.
- 7) Distinguishing facts from opinions.
- 8) Distinguishing the main idea from supporting details.
- 9) Forming personal justified opinions.

Goda [10] introduced a list of reading comprehension skills for improving secondary school students' reading comprehension which as follows:

- 1) Distinguishing the main idea from supporting details.
- 2) Recalling facts and details.
- 3) Inferring cause and effect relationships.
- 4) Reading for specific information.
- 5) Identifying word meaning from the text.
- 6) Identifying the writer's attitudes.
- 7) Inferring sequences.
- 8) Drawing conclusions.
- 9) Identifying the topic sentence of a paragraph.

### 1.5. Developing Reading Comprehension

Adopting taxonomy of procedures for developing reading comprehension, Toprak and Almacioğ [11] presented three stages of reading comprehension instruction (before reading, while reading, and after reading). In order to teach EFL reading comprehension effectively, teachers need to be familiar with a wide range of procedures at each of three stages. Some of these procedures may belong to various stages, e.g. students may be asked questions about a text before they read it in order to activate schema. In addition, teachers can pose questions while reading in order to direct their attention to main idea.

#### 1- Before Reading (Pre- Reading Stage)

The following procedures are intended to arouse students' interest and curiosity in text and to help the reader in comprehension before reading

- Answering questions about the topic
- Predicting the content of the text.
- Activating relevant schema.
- Activating relevant schema.
- Presenting relevant background information.

#### 2- While reading stage

While reading stage involves all procedures aiming at achieving a satisfactory level of comprehension while working with the text. This includes guiding the students through the text, exploring meaning, checking comprehension, and resolving problems.

- Silent reading
- Checking comprehension

- Facilitating comprehension

### 3- After reading (Post-reading stage)

This stage takes place after reading the text to check students' understanding of what they have read incorporate reading to other language skills and connect the text with their personal experience. In this stage, students can summarize the text, compare several texts, and re- sequence scrambled texts. Procedures at this stage include:

- Summarizing the text
- Comparing several texts

#### 1.6. The Reading comprehension Models

There are three models of reading:

- 1) The Bottom-Up Model.
- 2) The Top-Down Model
- 3) Interactive Model

#### 1.7. Reading comprehension difficulties facing EFL students

There are several difficulties preventing students from achieving comprehension in reading process. Perfetti [12] makes it clear, there is room for lots of things to go wrong when comprehension fails". These difficulties can contribute to the unsuitable use of reading strategies during reading, and lower expectations by the reader and the teacher. According to the Mourtaga [13] these difficulties can be classified as follows:

- 1) The differences between Arabic and English,
- 2) The misunderstanding of the reading process,
- 3) The English spelling/Sound system, and
- 4) Insufficient linguistic competence in general and use of English.

#### 1.8. Solutions for reading comprehension difficulties

With the help of teachers, students can learn strategies to cope with comprehension difficulties that influence the reading. According to Clay [14] students should monitor their own comprehension through being aware of what they do understand, identifying what they do not understand and using appreciate "fix-up" strategies to resolve reading comprehension difficulties. In addition, Sehlaoui [15] and Mourtaga [13] suggest some promising and productive solutions, such as:

- 1) Increasing students' motivation, interests and lowering students' anxiety.
- 2) Giving students chances to use English as much as possible.
- 3) Following the extensive approach for reading.
- 4) Letting students practice much writing and reading. For example, students can be asked to summarize a certain paragraph after reading.
- 5) Activating students' schemata.
- 6) Lowering students' anxiety.
- 7) Integrating reading with other language skills for instance, students are asked to write a summary after reading a certain paragraph.
- 8) creating a purpose for reading using task-based and problem-solving activities, and
- 9) Using minimal and sentence pairs.

Regarding the different solutions, the researcher suggests some tips which may help solving these difficulties and developing reading comprehension:

- 1) During reading activity, ask them open-ended questions which will assist students to read beyond lines.
- 2) Using some metacognitive and scaffolding strategies such as semantic mapping and reciprocal teaching strategies that help students break information down and keep track of what they read.
- 3) Teach students how to be a good readers e.g. how to summarize, how to take notes, and how to make predictions.
- 4) Discuss the meaning of some words during reading the text such as what those words mean and how they can be used.
- 5) Teach students to monitor their own comprehension, show them how to ask themselves, for example, "what's unclear here?" Or "what information am I missing"? And "what else should the author is telling me?"
- 6) Using some strategies to enhance their motivation and make the reading activity interesting.

#### 1.9. The related studies of reading comprehension

Basyouni [16] investigated the use of some online reading strategies to enhance secondary stage students' reading comprehension skills and their attitude towards reading. The researcher followed the quasi- experimental design. The study sample consisted of 62 participants from four classes at Kafr El-Sheikh science technology engineering and mathematics (STEM) School. The instruments included an online reading comprehension test and a reading attitude scale. Statistical analysis discovered significant gains and there proved to be a significant statistical difference between the mean score of the experimental group and that of the control groups on the post administration of the test in favor of the experimental group. Ali [17] aimed at improving secondary school students' EFL reading comprehension levels and self- autonomy through using online self-directed learning strategies - based program. The researcher followed the quasi-experimental design. Two intact classes from first-year Ahmed Muwphy secondary school for languages assigned to experimental group (N=25) and control group (N=25). The instruments were reading comprehension skills questionnaire, reading the comprehension test, self- autonomy scale and self-directed learning scale.

Results showed that experimental group students outperformed their counterparts of the control group on post reading comprehension test and self- autonomy scale. Mohamed [18] investigated effect of SQ4R Strategy on Developing EFL Reading Comprehension Skills among Secondary School Students in Qesna Formal Language School. The participants included (30) first Year Secondary School Students in Qesna Formal Language school, Qesna Menoufia Egypt. They assigned to 2 groups. I.e. one experimental group and a control group. To achieve aim of study, researcher designed a reading comprehension skills checklist, a pre/ post-test reading comprehension test. SQ4R Strategy designed to develop EFL reading comprehension skills among First Year Secondary School Students in Qesna Formal Language School. The t-test was used for the statistical analysis .The SQ4R strategy proved to be effective in enhancing First Year Secondary School Students' reading skills. Thus, suggested strategy effective in developing the EFL reading comprehension skills among the First Year Secondary School Students in the Qesn Formal Language School.

## 2. Neuro-linguistic Programming (NLP)

According to [20] "Neuro-linguistic programming (NLP) can be traced back to the 1970s at the University of California at Santa Cruz on the hands of its main founders"; Richard Bandler, a learner of Mathematics and Computer Science, and John Grinder, a university lecturer of Linguistics. As mentioned [21] Neuro-linguistic programming is utilized at the instructional field and the rationale behind that is the hardness of having a perfect teaching and learning process. The educational system faces challenges all the time, and there is a need to overcome these problems with practical solutions. The manipulation of neuro-linguistic programming is one of these fruitful solutions. Hence, it can be utilized in language learning. This technique is found in different fields like Psychotherapy, Management, Medicine, Sports, Business, and Law. Tosey & Mathison [22] Neuro-linguistic programming is a method of describing subjective experience, based upon the three key words (neuro) referring to thinking patterns, (linguistic), referring to the language an individual uses and (programming), referring to patterns of behavior. The four principles that under in Neuro- Linguistic Programming are rapport (with self and others), knowing what is wanted (outcome thinking), sensory acuity (recognizing what is happening) and behavioral flexibility (adaptability) (The origins of neuro-linguistic programming and the presuppositions that form epistemology upon which methodology is based, as well as some of techniques that have made their way into body of study that is neuro-linguistic programming today have their roots in anthropological or scientific knowledge [23].

### 2.1. The neuro-linguistic programming (NLP) techniques

To Wake [24] demonstrated neuro-linguistic programming, the perception of the Presuppositions defines sequence of suppositions/ statements which may lead to an uncomplicated and the active process. The four most significant presuppositions generally agreed upon are as follows:

- The Map itself is not the territory
- Presupposition refers to students' intentions
- Mind and body form a cybernetic system
- Presupposition

McDermott & Jago [25] there are some certain principles constitute (NLP), these can be considered the convenient beliefs within (NLP) practicing. These presumptions are generalizations about the world that can help gaining flexible attitude towards life, and from them all (NLP) techniques are engendered. Most of the literature that deals with (NLP) presents these principles such as: A number of these principles are not motionless, but the most approved upon principles are:

- 1) The map is not the territory.
- 2) Essential behavior is a constructive goal.
- 3) Students have all the resources they need for modification. Communicating cannot be stopped.
- 4) When going on undertaking the same strategies all the time the same results are got.
- 5) Mind and body form a system, they both affect each other.
- 6) There is no failure, only feedback.

Those principles are education in general, and linguistics in particular can be a fertile territory to (NLP). Students can

benefit from (NLP) principles if they are applied inside classrooms.

### 2.2. The importance of neuro-linguistic programming

Highlighting the important role of neuro-linguistic programming for TEFL Siddiqui [26] alleges that instructors can apply different (NLP) techniques to assess the kind of language that is used by learners and consider their thinking process, which can enable them to change students' thoughts and behavior in a way that leads to desired outcomes. Pandey and Kornana's [27] illustrated that application of neuro-linguistic programming techniques in EFL classrooms could influence teachers' as well as learners' thinking and language patterns of teaching process. Neuro-linguistic programming has also considered a program that can be adapted to all types of EFL learners (i.e., visual, auditory, and kinesthetic).

### 2.3. The important components of neuro-linguistic programming

Kong and Farrell [23] had the idea that neuro-linguistic programming focuses on three main components, i.e. subjectivity, awareness and learning.

### 2.4. Advantages of neuro-linguistic programming (NLP)

Keezhatta [28] as well as in academics, that Neuro-linguistic programming helps participants/students in achieving their goals and makes them more confident towards resolving any problem they face. In professional life, if considered from a teaching perspective, it facilitates teaching process. Moreover, neuro-linguistic programming promotes continuous learning which is crucial for both academic and professional life. In academics, that helps achieve better scores, and in professional life, it helps in career progression. Use of all senses to understand or process information makes NLP beneficial in both academic and professional life. Students are better able to control their emotions. Additionally, Neuro-linguistic programming is also useful to improve one's communication and behavior. Finally, the Neuro-linguistic programming advantages can be listed as follows.

- Neuro-linguistic programming is a natural method.
- It develops the language acquisition through psychological aspects.
- It uses the method of first language acquisition.
- It gives importance to acquisition than to learning.
- It gives positive environment in learning.
- It advocates in reducing stress and efforts.
- Practical knowledge is given importance than theory.
- Creativity is given importance.
- Sub-consciously students learn the language effectively.
- Video, audio, pictures and scripts are used to bring interest among students.
- Students enjoy learning in the (NLP) classrooms.
- It is a method of self-motivation and self-awareness.
- Motivation is the main tool used in this approach.
- Good relationship b/w teacher & students carries success.

### 2.5. The related study of Neuro-linguistic

To [29] investigated the effectiveness of neuro-linguistic programming (NLP) techniques in developing EFL reading comprehension for specific purposes courses.

Participants were 30 students for the experimental group and 30 students for the control group. A quasi experimental design was adopted. The instrument was (a reading comprehension test, based on content of course). Results showed that the implementation of (NLP) techniques has a significant effect on EFL reading comprehension. Ullah [30] conducted a study to investigate the role of the neuro-linguistic programming (NLP) to enhance the EFL speaking comprehension skills for learners with special reference to the Ghazi University Dera Ghazi Khan. A quasi experimental design adopted. Participants were 42 learners; they divided into the experimental and control groups. Instruments were a questionnaire to choose the targeted skills and the pre posttest. Results publicized that the Neuro-linguistics programming's recommended to the EFL teachers improved their interest of their learners in speaking the intellectual capacity [3].

### 3. Multiple Intelligences

#### 3.1. The nature/origin of Multiple Intelligences

Gardner, [31] proved that any researcher's/teacher's goal should be to encourage learners to use their minds, feelings, senses, and their abilities for their full potential. Educators should help their students to identify effective skills they possess to be successful in their instruction. Putting all learners in one box and expecting them to learn the same thing defies this perception by restricting learners' learning to a single way of thinking. Educators are preventing learners from widening their cognitive capacities by doing so. In order for students to properly comprehend and select ideas, theories, and concepts, the knowledge should be offered in a variety of ways of data. Gardner & Kurt Serhat added to the uniqueness of his idea by claiming that everyone held all nine, but that each person excelled in numerous areas of intellect. In order to help students become more successful, teachers must incorporate learning assignments that promote more of the intelligences. This will also assist learners in applying their knowledge to new settings and, in turn, improving each type of intelligence.

#### 3.2. The importance of Multiple Intelligences

Kurt Serhat, [32] According to the Multiple Intelligences Theory, knowing a learner's intelligence is beneficial to both the student and the teacher. Recognizing a student's intelligence allows the teacher to choose appropriate activities for the student in the classroom and more effectively lead his learning journey. While there are nine different intelligences in all, it is important to remember that teachers often concentrate on verbal-linguistic and logical-mathematical intelligences. The nine intelligences listed below in Figure (2).

#### 3.3. Characteristics of multiple intelligences in learning and teaching

Cornell Dave, [36] bodily kinesthetic learners prefer bodily activities over other sorts of activities, their memory is aided by movement, and they pay attention to movement from others as well as their own. When gaining knowledge, they may also try to learn by touching and moving objects. Students who are bodily kinesthetic have expertise making work with their fingers, may have a lot of force and a strong desire to move, and can be good athletes, Drawing, modeling, sculpting, drafting, keep, athletics, dancing, and hands-on  
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sciences are among the school activities that kinesthetic mastery oriented persons appreciate

To Cornell Dave, [33] the fact that Multiple Intelligences may be used for any theme and at any level makes it strong and helpful in the classroom. Each learner enters the classroom as an individual with a distinct level of intelligence. This indicates that each learner has his or her unique set of strengths and limitations in terms of intellect. These cognitive classifications, known as learning styles, govern how readily or difficultly a learner may learn through a certain teaching approach. For Marenus Michele, (2023) in a classroom, there can be a diversity of learning styles. To balance learning styles and subject matter, an instructor should show students how to grasp a subject that involves one of their weak intelligence domains by using their strongest intellect domain. For example, a student with a high level of musical intelligence may be challenged to create a song about war period and what happened during that conflict. Math may be learned through sketching, dancing, blogging, and many other activities.

#### 3.3.1. Integrating Multiple Intelligences into EFL teaching and learning

Multiple Intelligence (MI) may be used as a merit in an EFL classroom. Ahmad Pahrozi [34] MIT may be used in the classroom nevertheless of the competence level of the students, Physical exercise and bodily-kinesthetic intelligence can be used by teachers to assist learners develop their various intelligence domains. MIT can assist learners' points of strengths and shortcomings in an EFL course. These are known as learning styles, and they might affect a student's capacity to learn from a teacher. Teachers can create a curriculum that includes a variety of activities to assist and help their students.

#### 3.3.2. Context of the problem

This study investigated the effect of a program based on integrating neuro-linguistic programming and multiple intelligences to develop Al-Azhar secondary institute students' EFL reading comprehension levels, argumentative writing and self-regulation. The problem of the present research is emphasized through the following ways:

Working as a TEFL teacher, the research observed a gross lack in reading comprehension levels among EFL Al-Azhar secondary institute students.

- (a) Reviewing the previous studies that tackled comprehension reading [1] (Dreyer, 2003, Muijselaar, 2017; Liao, H.C, 2018; Siregar, 2017; Faggella, 2008). These studies revealed that there is a profound weakness in comprehension reading levels among EFL secondary institute students.
- (b) The researcher noticed through his work as English teacher for secondary stage that the students' incapability to comprehend what they read in texts. In order to verify this problem the researcher conducted some personal interviews and a pilot study which aimed at assessing the existence of this problem and its effects.
- (c) Conducting a pilot study on a group of 30 students enrolled in first year of secondary institute students, at beginning of first term of the academic year 2023,
- (d) The sample of the pilot study submitted to reading comprehension levels test (adopted from Cambridge English Exams for IELTS).

Results of the reading comprehension test illustrated that the first year of the secondary institute students are still weak in reading the comprehension levels and do not reach the required level of proficiency in the reading comprehension levels. The scores of the test showed that the students have clear the deficiencies in reading the comprehension levels. Hence, the researcher suggested using a program based on the integrating of the neurolinguistic programming and the multiple intelligence to solve that problem.

#### ➤ *The Pilot Study*

A pilot study was conducted in order to affirm the problem. A pilot test for reading comprehension levels to determine the skills of each level. the test was conducted to a group of (30) of first year Al-Azhar secondary institute students at the Khafr Abo- Gabal city in Sharkia governorate in the first term of (2023) academic school year. The test of reading comprehension levels was divided into four levels; each level of reading comprehension has adopted sub-skills. Firstly, students asked to read a text of reading in each level, then, they answer questions. The results showed that students have clear deficiencies in reading comprehension levels. The statistical results shown in table 2. The results of reading the comprehension levels pilot study showed that the mean scores of participants are 7 (35%) in literal level which indicated that most students had deficiencies in reading comprehension the literal level, 33% in the inferential level, 34% in the critical level, and 35% in the creative level.

#### 3.3.3 *Statement of the problem*

Based on above discussion and results of pilot study, it could be concluded that EFL 1<sup>st</sup> grade secondary institute students' English section had problems and low standers in reading comprehension levels. To address such a problem, current research investigated the effect of a program based on integrating neuro-linguistic programming and multiple intelligences on developing secondary institute students' the EFL reading comprehension levels. Accordingly problem under investigation could thus be stated in following questions:

#### ➤ *The questions of the study*

The present research attempted to answer the following main question:

"What is the effect of a program based on integrating neuro-linguistic programming and multiple intelligences on developing Al-Azhar secondary institute students' EFL reading comprehension levels?"

#### ➤ *The main question is sub- divided into the following sub-questions;*

- 1) What is the effect of a program based on integrating neuro-linguistic programming and multiple intelligences in developing first year of Al-Azhar secondary institute students' EFL reading comprehension levels?
- 2) What are the required reading comprehension levels skills and sub- skills for EFL first year of Al-Azhar secondary institute students?
- 3) How far do these students successfully perform these skills of reading comprehension levels?

- 4) To what extent is program based on the neuro-linguistic programming and multiple intelligences effective in developing first year of Al-Azhar secondary institute students' EFL reading comprehension levels?
- 5) What are the dimensions of reading comprehension levels can be developed by the program?

#### 3.3.4. *Aim of the research*

Fundamentally the present research aimed at:

- 1- Developing first year of Al-Azhar secondary institute students' EFL reading comprehension levels via a program based on integrating neuro-linguistic programming and multiple intelligences.

#### 3.3.5. *Significance of the research*

Basically, the results of the present research would helpfully be expected to be beneficial to:

- 1) EFL first year of Al-Azhar secondary stage students in helping them: (a) identify the techniques and strategies of neurolinguistics programming and how the mind works and interact, (b) develop reading comprehension levels, (c) develop students linguistics and communication,
- 2) EFL teachers in: (a) providing them with a practical description of an influential program that might be effective in enhancing students' comprehension reading proficiency, and (b) helping them determine some the problematic areas that Arab readers and speakers of English encounter in learning English language and find solutions for them.
- 3) EFL curriculum designers in: (a) Paying their attention to adopt new methods of teaching that aim at changing the role of the student from a passive recipient to an active positive learning who is willing to participate in the classroom, and (b) motivating them to conduct training courses for the EFL teachers to raise their awareness of the neuro-linguistic and multiple the intelligences theories.
- 4) EFL researches in opening new research avenues for regarding, (a) Neuro-linguistic theory, (b) Multiple intelligences, (c) Comprehension Reading, and a neglected variables in TEFL studies in Egypt to z best of the researchers' knowledge.

#### 3.3.6. *Delimitations of the study*

##### ➤ *Delimitation of the Research*

The present research will be delimited to:

A questionnaire and checklist of skills and sub-skills of reading comprehension levels.

- A test for reading comprehension levels that consisted of two parts.
- A Rubric scale for scoring the reading comprehension levels test.
- Four dimensions of reading comprehension levels (literal, inferential, critical, and creative).
- A sample of (60) are now intended EFL first year of Al-Azhar secondary institute students.
- Some reading comprehension skills list validated by jerry members.
- First semester (term) of EFL secondary state students' English course.

### 3.3.7. Method of the Research

#### ➤ Design

- The present research adopts the mixed-method design, combining both quantitative and qualitative methods of collecting data.
- The quantitative data will be collected through test for assessing reading comprehension levels
- This instrument will be administered to the research participants before the treatment according to the opinions of the jurors.
- The qualitative data will be collected via reading comprehension analytic test in order to examine the changes in participants' responses during the pre-post administrations.

#### ➤ Participants

Participants of the research will be (60) EFL students are now enrolled in the first year of Al-Azhar secondary institute. They will be assigned into two groups: treatment and non-treatment with (30) participants in each group.

- The treatment group will be taught using the program, whereas the non-treatment one will receive regular instruction.
- The pre-posttests administrations will be adopted.

### 3.3.8. The Instruments of the study

After reviewing the related literature and the previous studies related to reading comprehension skills. The following instruments were designed by the researcher in the light of the study independent variable:

For reading comprehension skills "Variable:

A. EFL Reading comprehension skills questionnaire.

B. EFL reading comprehension test.

C. EFL reading comprehension scoring rubric.

### 3.3.9. Hypotheses of the study

- 1) On the basis of the review of literature and the relevant studies, the following can be hypothesized:
- 2) There would be a statistically significant difference between the mean scores of the experimental group and the control group in the post administration of reading comprehension levels skills in favor of the experimental group.
- 3) There would be a statistically significant difference between the mean scores of pre and post administration of reading comprehension levels skills for experimental group in favor of the post administration.
- 4) The program based on integrating neuro-linguistic programming and multiple intelligences would be effective in developing first year of the Al-Azhar secondary institute students' reading the comprehension levels.

### 3.3.10. Validating the study hypotheses

#### ➤ Hypothesis 1

- Hypothesis of the reading comprehension levels
- Hypothesis (1)

It was hypothesized that: There would be a statistically significant difference between mean scores of experimental group and control group in post application of reading comprehension levels skills in favor of the experimental group". The above table indicates that there is a statistically significant difference at (0.01) level between attained mean

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scores of experimental and that of control one in favor of experimental group in post application of reading comprehension levels skills test. Mean scores of experimental group is (M=8.23) and that of control group is (M=2.66), this means that the score of experimental group's post administration of reading the comprehension skills test is better than that of control group. The estimated t- value is (16.58).It is significant at (0.01) level in favor of the experimental group.

#### ➤ Hypothesis 2

It was hypothesized that: There would be a statistically significant difference between the mean scores of pre and post administration of reading comprehension levels skills for experimental group in favor of the post administration. The previous table (10) indicates that there is a statistically significant difference at (0.01) level between the attained mean scores of the pre and that of the post one of the experimental group in favor of the post application of reading comprehension levels skills. The mean scores of pre application of the experimental group is (M=3.06) and that of the post application is (M=8.23), this means that the score of the post application of reading comprehension levels skills test outperforms the pre application. The estimated t- value is (16.61).It is significant at (0.01) level in favor of post application of the experimental group.

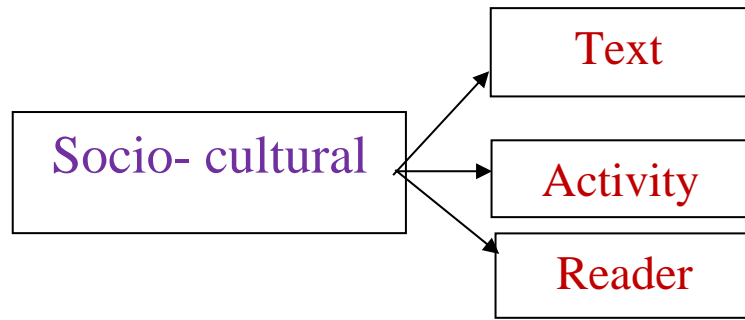
#### ➤ Hypothesis 3

It was hypothesized that: There is an effect of a program based on integrating neuro-linguistic programming and multiple intelligences multiple intelligences on developing EFL secondary Al-Azhar institute students' reading comprehension levels. This hypothesis is approved by the following table: ES is decided according to next indicators as shown in next table.

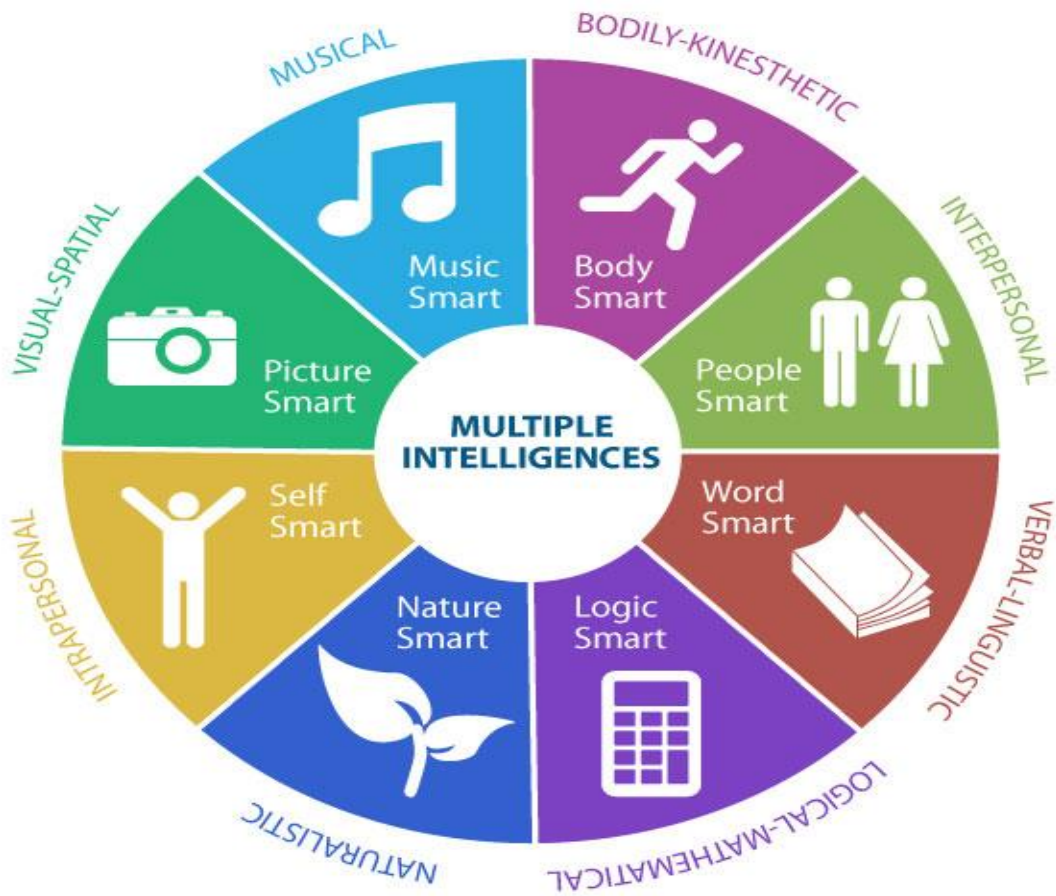
### 3.3.11. The Results

- 1) There was a statistically significant difference between the mean scores of the experimental and control group in the post administration of the EFL reading comprehension levels skills test as a whole in favor of the experimental group.
- 2) There was a statistically significant difference between the mean scores of the experimental group in the pre and post administration of the EFL reading comprehension levels Skills test in favor of the post test.
- 3) There was a statistically significant difference between the mean scores of the experimental and control group students in the post administration of the EFL reading comprehension levels (literal, inferential, critical, and creative levels) Skills tests in favor of the experimental group.
- 4) There was a statistically significant difference between the mean scores of the experimental group students in the pre and post administration of the EFL reading the comprehension levels (the literal, inferential, critical, and creative levels) the Skills Tests in favor of the post-test.
- 5) The suggested program based on integrating the neuro-linguistic programming and the multiple intelligences was effective in developing EFL secondary the Al-Azhar institute students' reading the comprehension levels.





**Figure (1):** The types of reading comprehension (Snow, 2010).



**Figure (2):** The nine intelligences



**Table (2):** The Pilot results for reading comprehension skills test

Reading Comprehension levels	N	Maximum	Mean scores	St. deviation	Mean Ratio
Literal level	30	20	7	6	35%
Inferential level	30	20	6	7	33%
Critical level	30	20	7	5	34%
Creative level	30	20	6	5	35%

**Table (1):** Independent samples t-test of the post application of reading comprehension levels skills test (n=60).

Group	NO.	Mean	SD	DF	T-value	Sig.
Post Experimental	30	8.23	1.54	58	16.58	0.000
Post Control	30	2.66	0.99			

Non-significant at (0.01) level.

**Table (2):** Comparing EFL reading comprehension levels skills post-test results for both groups

Reading comprehension sub-skills	Group	N	M	S.D	D.F	t-value	sig
1- inference	Control	30	5.2	7.4	58	5.12	0.01
	experimental	30	7.5	7.23			
2- Interpretation	Control	30	5.3	6.34		6.33	0.01
	experimental	30	6.9	6.45			
3- Analysis	Control	30	5.8	5.32		6.33	0.01
	experimental	30	7.3	5.56			
4- Evaluation	Control	30	5.2	6.45		9.35	0.01
	experimental	30	8.2	6.23			
Overall	Control	30	22.4	10.5	58	9.35	0.01
	experimental	30	32.5	10.8			

**Table (3):** Paired samples t-test of the experimental group reading comprehension levels skills test pre -post administration (n=30)

Experimental group	NO.	Mean	SD	DF	T-value	Sig.
Pre application	30	3.06	1.25	29	16.61	0.00
Post application	30	8.23	1.54			

Non- significant at (0.01) level.

**Table (4):** Indicators for evaluating the Effect Size (ES) values according to  $\eta^2$  and  $d_2$

Tool	Effect Size			
	Low	Medium	Large	Very Large
$\eta^2$	0.01	0.06	0.14	0.20
$d_2$	0.2	0.5	0.8	1.10

**Table (5):** The Effect Size (ES) values according to  $\eta^2$  of a program based on integrating neuro-linguistic programming and multiple intelligences on developing EFL secondary Al-Azhar institute students' reading comprehension levels.

Skills	T	T2	DF	$\eta^2$	Effect Size
Reading comprehension levels	16.611	275.925	29	0.94	Very Large

Non- significant at (0.01) level.

#### 4. Conclusions

Based on the results of statistical data, the researcher came up with the following conclusions: The use of neuro-linguistic programming and multiple intelligences and technology as a base in EFL classes can allow students to use their strongest intelligence to grasp and learn best. Neuro linguistic programing is now emerging as an emotional bridge that helps researchers to build and maintain functional rapport with students and motivate them throughout their learning journey towards success. To eliminate stress for learners, neuro-linguistic programing techniques should be implemented daily, as they play an important role in the improvement of learners' reading comprehension levels learning and achievement of success. Linguistic programming and multiple intelligences have been used in the process of teaching and learning throughout the world. Educators should include more technology for in-class assignments and learning, as some learners need different teaching and learning strategies in order to fully understand ideas and succeed. Students who have linguistic intelligence show distinguished skill in reading in general and reading comprehension, and learning languages. They are greatly responsive to the meaning and orders of words. Students with linguistic intelligence learn best by listening to their lessons and through discussion and debate. It has been highlighted that when Howard Gardner's multiple intelligences are used in the classroom, students are inspired to think critically and creatively while also developing knowledge and abilities that will benefit them both inside and outside of classroom.

Gardner's theory of multiple intelligences enables educators to correctly assess students' using non-restrictive ways while giving them a sense of ownership over their education. There has been a resounding consensus among academics and educators that multiple intelligences theory-based instruction benefits students. The theory can be easily modified for use in special education classrooms or educational objectives and is capable of instructing learners across a range of cultures and ages. This research / dissertation aimed at scrutinizing the effect of a program based on Integrating Neuro –linguistic Programming and Multiple Intelligences on developing 60 EFL Al- Azhar Secondary institute Students' Reading Comprehension Levels, from Sharkia Governorate in 2023. To achieve the aims of the study, the researcher designed Students' Reading Comprehension Levels, in addition to the Suggested Program Based on integrating Neuro –linguistic Programming and Multiple Intelligences. The researcher taught the suggested program to the experimental group for a complete semester, while the control group received regular instruction. The results indicated that the experimental group outperformed the control group in the post-reading comprehension levels skills tests administration.

#### 5. Suggestions for further research

Based on the results of the current study, the following areas of future research could be suggested to be as a light in the field of research:

1. Conducting other studies to adapt the suggested program in other educational stages (e.g., primary, secondary and university).
2. Investigating the effect of program based on integrating Neuro-linguistic Programming and Multiple

Intelligences on developing EFL students' reading comprehension levels (literal, inferential, critical, and creative) levels skills.

3. Scrutinizing the effect of program based on integrating Neuro-linguistic Programming and Multiple Intelligences on developing EFL students' other types of listening skills (Informational listening comprehension, Discriminative listening, Biased listening, Sympathetic listening, Comprehensive listening, Empathetic or therapeutic listening, and Critical listening comprehension).
4. Investigating the effect of program based on integrating Neuro-linguistic Programming and Multiple Intelligences on developing EFL students' oral communications skills.
5. Investigating the effect of program based on integrating Neuro-linguistic Programming and Multiple Intelligences on developing EFL students' vocabulary and reducing Gloss phobia towards learning and teaching.
6. Examining the effect of Multiple Intelligence Theory on enhancing grammatical competence in EFL context.
7. Conducting the effect of program based on integrating Neuro-linguistic Programming and Multiple Intelligences on developing EFL students' other types of writing skills (Expository writing, Descriptive writing, Narrative writing, and Persuasive writing).
8. Investigating the effect of program based on integrating Neuro-linguistic Programming and Multiple Intelligences on developing EFL students' other types of reading skills (Skimming, Critical, and Scanning).
9. Examining the effect of program based on integrating Neuro-linguistic Programming and Multiple Intelligences on developing EFL students' other types of speaking skills (Ceremonial Speaking, Persuasive Speaking, Informative Speaking, Entertaining Speaking and Demonstrative Speaking).

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